1854MNRAS..15Q..65S

On the Phenomenon seen during the Total Eclipse of the Sun of November 30, 1853.

(*Extract of a Letter from Capt. Shea.*)

"On perusing the account of the total eclipse of the sun on the 30th November, 1853, at Ocucaja, in Peru (communicated by Admiral W. H. Smyth), in No. 8, June 9th, 1854, of the Royal Astronomical Society's *Monthly Notice*, I find, on referring to my register of the spots passing over the sun's disc, that the spot seen here on the 24th of November, 1853, would occupy the same position in the solar hemisphere as the 'rose-coloured protuberance' described in the account above referred to."

Captain Shea further remarks, that the observations of the total eclipse of the sun, July 28, 1851, appear to him to strengthen the opinion of the identity of the solar spots with the rose-coloured protuberances.

Tables for Facilitating the Determination of the Latitude and Time at Sea by Observations of the Stars. By Charles F. A. Shadwell, Esq., F.R.A.S., Captain Royal Navy. New edition, 8vo. London, 1854.

This new edition of a work well known to the naval profession is distinguished by various improvements, which have a tendency to promote its useful character. Several additional couplets of stars are inserted in Tables I. and II., which, it may be stated by way of explanation to those who have not seen the work, are computed with a view to abbreviate the process for finding the latitude by "Simultaneous Altitudes," or, in other words, by simultaneous observations of the altitudes of two stars.

The author has pointed out the facility with which, under certain favourable circumstances, the same method may be employed for finding the Time, and he has computed a new Table (Table III.) with a view to the promotion of this object. He has also computed a fourth Table adapted to the method "for finding the latitude by the combined altitudes of two stars taken at an interval of time equal to the difference of their right ascensions."

In reference to the last-mentioned method, which was originally given in Lynn's Navigation, but appears to have subsequently fallen into oblivion, the author remarks that, "since the observations required are in themselves very simple, since the practical fulfilment of the requisite condition as to time demanded by the problem is not attended with any particular difficulty, and since the actual computation may be materially facilitated by the use of previously prepared constants depending on the declinations of the stars, there does not seem to be any valid objection to the revival of this problem, and to again submitting it to the notice of the scientific navigator. Moreover, since the period during which the observations may be

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made is not restricted to any precise moment, as in the case of meridional altitudes, advantage may frequently be taken of the favourable circumstances of morning and evening twilights, when the distinct definition of the sea-horizon is conducive to the accuracy of the results ; a recommendation analogous to that which attends the method of Simultaneous Altitudes."

Leçons de Cosmographie, Rédigées d'après les Programmes Officiels. Par H. Faye, Membre de l'Institut, &c. &c. Deuxième edition. 8vo. Paris, 1854.

This work contains a lucid exposition of the more elementary principles of astronomy adapted to the present state of the science. The early appearance of a second edition is a sufficient proof of the esteem in which the work is held in France.

Sitzungsberichte der Kaizerlichen Akademie der Wissenschaften. Band XII. (Jänner.) Wien, 1854.

This publication contains three astronomical papers, which it may be occasionally desirable to consult. The first of these is by M. Hornstein : it contains a determination of the orbit of Comet I. 1853, founded upon the totality of the observations of the comet, extending from March 6 to April 11. The second is by M. Littrow, and refers to the points of resemblance which subsist between the orbits of the various bodies composing the solar system. The third, by M. Oeltzen, is devoted to a comparison of the Zone observations of Bessel and Argelander.

Astronomical Observations made at the Radcliffe Observatory in the year 1852. By Manuel J. Johnson, M.A., Radcliffe Observer, Vol. XIII. Oxford, 1854.

The Meridian Observations in this volume, with few exceptions, relate to the Circumpolar Catalogue. The author states that another year will be required to complete the latter on the system laid down of not admitting any star which has not been observed in at least two different years. "This system," he remarks, "though it has prolonged our task, has been found so useful a check against errors and confusions of all kinds, as to afford ample compensation for delay." The author announces that an investigation of the parallaxes of 61 *Cygni* and 1830 *Groombridge*, founded upon observations with the heliometer, will appear in the next volume, which will be shortly published.

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